

# **EXHIBIT 24**



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90/019,676	09/23/2024	7784058	VIR058	7612
27975	7590	10/24/2024	EXAMINER	
ADD+G - 27975			WOOD, WILLIAM H	
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			ART UNIT	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



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***EX PARTE* REEXAMINATION COMMUNICATION TRANSMITTAL FORM**REEXAMINATION CONTROL NO. 90/019,676 .PATENT UNDER REEXAMINATION 7784058 .ART UNIT 3992 .

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified *ex parte* reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the *ex parte* reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

<b>Order Granting Request For Ex Parte Reexamination</b>	<b>Control No.</b> 90/019,676	<b>Patent Under Reexamination</b> 7784058	
	<b>Examiner</b> WILLIAM H WOOD	<b>Art Unit</b> 3992	<b>AIA (FITF) Status</b> No
<p><b>--The MAILING DATE of this communication appears on the cover sheet with the correspondence address--</b></p> <p>The request for <i>ex parte</i> reexamination filed <u>09/23/2024</u> has been considered and a determination has been made. An identification of the claims, the references relied upon, and the rationale supporting the determination are attached.</p> <p>Attachments: a) <input type="checkbox"/> PTO-892,      b) <input checked="" type="checkbox"/> PTO/SB/08,      c) <input type="checkbox"/> Other: _____</p> <p>1. <input checked="" type="checkbox"/> The request for <i>ex parte</i> reexamination is GRANTED.</p> <p>RESPONSE TIMES ARE SET AS FOLLOWS:</p> <p>For Patent Owner's Statement (Optional): TWO MONTHS from the mailing date of this communication (37 CFR 1.530 (b)). <b>EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.550(c).</b></p> <p>For Requester's Reply (optional): TWO MONTHS from the <b>date of service</b> of any timely filed Patent Owner's Statement (37 CFR 1.535). <b>NO EXTENSION OF THIS TIME PERIOD IS PERMITTED.</b> If Patent Owner does not file a timely statement under 37 CFR 1.530(b), then no reply by requester is permitted.</p>			
/William H. Wood/ Primary Examiner, Art Unit 3992			
cc:Requester ( if third party requester )			

Application/Control Number: 90/019,676  
Art Unit: 3992

Page 2

### **DECISION ON REQUEST FOR REEXAMINATION**

Reexamination (*ex parte*) has been requested by a third party (Unified Patents, LLC) for claims 1 and 12 of US 7,784,058 to Rochette et al., which issued on 08/24/2010 (hereinafter, the '058 patent).

The Request for *ex parte* reexamination (herein *Request*) was received on 09/23/2024.

A substantial new question of patentability affecting claims 1 and 12 of United States Patent Number 7,784,058 to Rochette et al. is raised by the request for *ex parte* reexamination. As such the filed request for reexamination is granted.

### ***Notice of Pre-AIA or AIA Status***

The present application is being examined under the pre-AIA first to invent provisions.

### ***Reexamination***

Extensions of time under 37 CFR 1.136(a) will not be permitted in these proceedings because the provisions of 37 CFR 1.136 apply only to "an applicant" and not to parties in a reexamination proceeding. Additionally, 35 U.S.C. 305 requires that *ex parte* reexamination proceedings "will be conducted with special dispatch" (37 CFR 1.550(a)). Extensions of time in *ex parte* reexamination proceedings are provided for in 37 CFR 1.550(c).

The patent owner is reminded of the continuing responsibility under 37 CFR 1.565(a) to apprise the Office of any litigation activity, or other prior or concurrent proceeding, involving Patent No. 7,784,058 throughout the course of this reexamination proceeding. The third party requester is also reminded of the ability to similarly apprise the Office of any such activity or proceeding throughout the course of this reexamination proceeding. See MPEP §§ 2207, 2282 and 2286.

Application/Control Number: 90/019,676  
Art Unit: 3992

Page 3

***Information Disclosure Statement***

The information disclosure statements (IDS) submitted on 09/24/2024 are considered by the examiner in accordance with 37 CFR 1.98, 37 CFR 1.555, and MPEP 2257, to the fullest extent of the items presented including any concise explanation. Documents not meeting particular criteria are lined through and not considered.

***Prosecution History Summary***

The patent requested for reexamination, US 7,784,058 to Rochette et al., issued from U.S. Application 10/946,536 with a filing date on 09/21/2004, which claims priority to provisional application 60/504,213 (filed 09/22/2003). The following is a summary of the relevant portions of the corresponding prosecution history.

Issued claims 1 and 12 are requested for reexamination, which correspond to prosecution claims 1 and 13. The Non-Final Rejection of 11/18/2008 rejected claims 1-20 as being anticipated under 35 USC 102 by Cabrero (U.S. Patent 6,260,075). After the claim amendment of 02/18/2009, the Final Rejection of 04/02/2009 maintained the rejection of claims 1-20 as being anticipated under 35 USC 102 by Cabrero (U.S. Patent 6,260,075) and indicated the arguments of 02/18/2009 were not persuasive.

After the RCE of 07/01/2009 with claim amendments, the Non-Final Rejection of 09/22/2009 rejected claims 1-9 and 11-20 as being unpatentable over O'Rourke (US 6,212,574 B1) in view of Peek (US 5,481,706) and rejected claim 10 as unpatentable over O'Rourke in view of Peek in further view of Desoli (US 2004/0025165 A1).

After the claim amendment and arguments of 01/15/2010, the Notice of Allowance of 05/03/2010 allowed prosecution claims 1-5 and 7-19. After an Examiner's Amendment moving much of claim 6 into independent claim 1, The Notice of Allowance stated (pages 4-5):

Application/Control Number: 90/019,676

Page 4

Art Unit: 3992

None of Elnozahy et al. (hereinafter Elnozahy) (US 7,499,966 B2) and Wong et al. (hereinafter Wong) (US 2004/0216145 A1) on the record discloses “a shared library having shared library critical system elements (SLCSEs) stored therein for use by the plurality of software applications in user mode and

i) wherein some of the SLCSEs stored in the shared library are functional replicas of OSCSEs and are accessible to some of the plurality of software applications and when one of the SLCSEs is accessed by one or more of the plurality of software applications it forms a part of the one or more of the plurality of software applications, and

ii) wherein an instance of a SLCSE provided to at least a first of the plurality of software applications from the shared library is run in a context of said at least first of the plurality of software applications without being shared with other of the plurality of software applications and where at least a second of the plurality of software applications running under the operating system have use of a unique instance of a corresponding critical system element for performing same function.

iii) wherein a SLCSE related to a predetermined function is provided to the first of the plurality of software applications for running a first instance of the SLCSE, and wherein a SLCSE for performing a same function is provided to the second of the plurality of software applications for running a second instance of the SLCSE simultaneously” (Claim 1).

Therefore, at least these above limitations would be considered important to a reasonable examiner, as well as: “wherein a SLCSE related to a predetermined function is provided to the first of the plurality of software applications for running a first instance of the SLCSE, and wherein a SLCSE for performing a same function is provided to the second of the plurality of software applications for running a second instance of the SLCSE simultaneously”.

Application/Control Number: 90/019,676  
Art Unit: 3992

Page 5

After the prosecution of US Application 10/946,536 which resulted in reexamination requested patent US 7,784,058 to Rochette et al., the patent was involved in current litigation: (1) 5:24cv4740, Red Hat, Inc. v. Virtamove, Corp.; (2) 2:24cv93, Virtamove, Corp. v. Hewlett Packard Enterprise Company; (3) 7:24cv33, Virtamove, Corp. v. Google LLC; (4) 7:24cv30, Virtamove, Corp. v. Amazon.com, Inc. et al.; (5) 2:24cv64, Virtamove, Corp. v. International Business Machines, Corp.

### ***References of the Request***

The *Request* proposes the following patents and/or printed publications provide teachings relevant to the requested claims of the '058 patent.

#### *Lucas*

*Lucas*, printed publication by M. Lucas titled "Absolute BSD: the Ultimate Guide to FreeBSD" (herein *Lucas*) published by No Starch Press in 2002, was not cited during the original prosecution of application 10/946,536 which resulted in the reexamination requested patent. The *Lucas* reference is eligible for application under at least 35 U.S.C. 102(a) as the *Lucas* reference was published, on its face, in 2002 as compared to the earliest possible priority date of the '058 patent to 09/22/2003. Further evidence suggests the reference is eligible for application under at least 35 U.S.C. 102(b) as it was available over a year before the earliest possible priority date of the '058 patent (see *Request* pages 5-7). As discussed in the following section on SNQs, the *Request* asserts *Lucas* establishes a substantial new question of patentability.

#### *Blott*

*Blott*, printed publication by S. Blott et al. titled "NetTap: an efficient and reliable PC-based platform for network programming" (herein *Blott*) published by IEEE Third Conference on Open



Application/Control Number: 90/019,676

Page 6

Art Unit: 3992

Architectures and Network Programming in March 2002, was not cited during the original prosecution of application 10/946,536 which resulted in the reexamination requested patent. The *Blott* reference is eligible for application under at least 35 U.S.C. 102(b) as the *Blott* reference was published, on its face, in March 2002 as compared to the earliest possible priority date of the '058 patent to 09/22/2003 (see also *Request* pages 7-8). As discussed in the following section on SNQs, the *Request* asserts *Blott* establishes a substantial new question of patentability.

#### Kamp

*Kamp*, printed publication by P.H. Kamp et al. titled "Jails: Confining the omnipotent root" (herein *Kamp*) accessible by Sane 2000 Conference in 2000, was not cited during the original prosecution of application 10/946,536 which resulted in the reexamination requested patent. The *Kamp* reference is eligible for application under at least 35 U.S.C. 102(b) as the *Kamp* reference was published in 2000 as compared to the earliest possible priority date of the '058 patent to 09/22/2003 (see *Request* pages 8-10). As discussed in the following section on SNQs, the *Request* asserts *Kamp* establishes a substantial new question of patentability.

### ***Substantial New Question of the Request***

The following is an analysis of the *Request* asserted at least one substantial new question of patentability, in view of the above cited prior art, with respect to issued claims 1 and 12 of US 7,784,058 to Rochette et al.

#### Issue 1

The *Request* asserts *Lucas* in view of *Blott* and *Kamp* raise a substantial new question of patentability (*Request: pages 10-15, Sections I.E, I.F, and I.G; Ground 1*).

Application/Control Number: 90/019,676  
Art Unit: 3992

Page 7

Claims 1 and 12 are proposed as being unpatentable over *Lucas* in view of *Blott* in further view of *Kamp* (*Request: pages 16-31, Section II; Ground 1*).

*Lucas* shows in relation to the FreeBSD operating system: an operating system with a kernel having critical system elements (*Lucas: page 61, "The first step in optimizing FreeBSD is to configure the kernel"; page 62, "The kernel is the interface between the hardware and the software"; page 62, "The kernel provides interfaces to programs that need access to the hardware"*); a shared library with critical system elements for use by software applications (*Lucas: page 260, "The basic idea behind a shared library is quite straightforward: It's a chunk of compiled code that provides services and functions to other chunks of compiled code. Shared libraries provide popular functions for all programs to use, and they are designed to be reused by as many different programs as possible"; page 260, "FreeBSD builds a cache of available shared libraries at boottime"*); and an instance run in a context without being shared with other applications (*Lucas: page 175, "when using FreeBSD, you can build an entire virtual machine on disk, and isolate that machine from the rest of your system. This is called a jail."*).

*Blott* shows in relation to the FreeBSD operating system: shared user-level libraries (*Blott: page 18, "e.g., by user-level libraries, for TCP/IP protocols, security [19], or output link scheduling [8]. Such libraries can run on top of the NetTap API. Applications may easily specialize or modify user-level libraries"*); and libraries as functional replicas of critical kernel elements (*Blott: abstract, "NetCounter, an application for capturing and aggregating IP network billing records, achieves greater throughput on NetTap at user level than does FreeBSD's IP forwarding at kernel level"; page 15 referring to section II., "the NetTap API does support" referring to page 14, section II, item 3, "... user-level applications. Applications are easier to develop, debug, and maintain at user level than at kernel level"; page 20, "NetTap's user-level bridging slightly outperformed kernel-level bridging"*).

Application/Control Number: 90/019,676  
Art Unit: 3992

Page 8

*Kamp* discloses in relation to the FreeBSD operating system: shared libraries of an instance not shared with another instance with its own shared libraries (*Kamp*: page 9, “the expected configuration creates a complete FreeBSD installation for each jail. This includes copies of all relevant system binaries, data files, and its own /etc directory. Such a configuration maximises the independence of various jails, and reduces the chances of interference between jails being possible”); and two simultaneously running instances (*Kamp*: page 2, “Processes in a jail are provided full access to the files that they may manipulate, processes they may influence, and network services they can make use of, and neither access nor visibility of files, processes or network services outside their partition”; page 6, “Processes within the jail will find that they are unable to interact or even verify the existence of processes outside the jail - processes within the jail are prevented from delivering signals to processes outside the jail, as well as connecting to those processes with debuggers, or even see them in the sysctl or process file system monitoring mechanisms. Jail does not prevent, nor is it intended to prevent, the use of covert channels or communications mechanisms via accepted interfaces - for example, two processes may communicate via sockets over the IP network interface”).

These disclosures of *Lucas*, *Blott*, and *Kamp* constitute teachings pertinent to at least claim limitations: “a shared library having shared library critical system elements (SLCSEs) stored therein for use by the plurality of software applications in user mode and i) wherein some of the SLCSEs stored in the shared library are functional replicas of OSCSEs and are accessible to some of the plurality of software applications and when one of the SLCSEs is accessed by one or more of the plurality of software applications it forms a part of the one or more of the plurality of software applications, and ii) wherein an instance of a SLCSE provided to at least a first of the plurality of software applications from the shared library is run in a context of said at least first of the plurality of software applications without being shared with other of the plurality of software applications and where at least a second of the

Application/Control Number: 90/019,676

Page 9

Art Unit: 3992

plurality of software applications running under the operating system have use of a unique instance of a corresponding critical system element for performing same function iii) wherein a SLCSE related to a predetermined function is provided to the first of the plurality of software applications for running a first instance of the SLCSE, and wherein a SLCSE for performing a same function is provided to the second of the plurality of software applications for running a second instance of the SLCSE simultaneously.”

As revealed in the above “Prosecution History Summary”, these limitations were important to the allowability of US 7,784,058 to Rochette et al. (including independent claim 1, and by extension dependent claim 12). As now presented, these teachings were not previously considered in the prosecution that led to the reexamination requested patent and are viewed in a new light. Therefore, each of *Lucas*, *Blott*, or *Kamp* are not merely cumulative to prior art already considered by the Office.

In light of these teachings, *Lucas* in view of *Blott* and *Kamp* is found to provide new prior art teachings that would be considered important to a reasonable examiner in evaluating the patentability of claims 1 and 12. Accordingly, *Lucas* in view of *Blott* and *Kamp* raises a substantial new question of patentability with respect to claims 1 and 12.

**35 USC 325(d)**

A review of the post grant history for the ‘058 patent indicates that there have been no other Office post grant challenges involving the patent (Reexamination Proceedings or *Inter Partes* Review, Post Grant Review, Covered Business Method trials). Accordingly, a determination of whether to exercise discretion to reject the request pursuant to 35 USC 325(d) is not applicable.

Application/Control Number: 90/019,676  
Art Unit: 3992

Page 10

***Correspondence Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIAM H WOOD whose telephone number is (571)272-3736. The examiner can normally be reached Monday-Friday 7am-3pm.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at <http://www.uspto.gov/interviewpractice>.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Kosowski can be reached on (571)272-3744. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Application/Control Number: 90/019,676

Page 11

Art Unit: 3992

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